

04/09/2006 10791982.trn

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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 DEC 21 IPC search and display fields enhanced in CA/CAPLUS with the  
IPC reform  
NEWS 4 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/  
USPAT2  
NEWS 5 JAN 13 IPC 8 searching in IFIPAT, IFIUDB, and IFICDB  
NEWS 6 JAN 13 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to  
INPADOC  
NEWS 7 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 8 JAN 17 IPC 8 in the WPI family of databases including WPIFV  
NEWS 9 JAN 30 Saved answer limit increased  
NEWS 10 JAN 31 Monthly current-awareness alert (SDI) frequency  
added to TULSA  
NEWS 11 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist  
visualization results  
NEWS 12 FEB 22 Status of current WO (PCT) information on STN  
NEWS 13 FEB 22 The IPC thesaurus added to additional patent databases on STN  
NEWS 14 FEB 22 Updates in EPFULL; IPC 8 enhancements added  
NEWS 15 FEB 27 New STN AnaVist pricing effective March 1, 2006  
NEWS 16 FEB 28 MEDLINE/LMEDLINE reload improves functionality  
NEWS 17 FEB 28 TOXCENTER reloaded with enhancements  
NEWS 18 FEB 28 REGISTRY/ZREGISTRY enhanced with more experimental spectral  
property data  
NEWS 19 MAR 01 INSPEC reloaded and enhanced  
NEWS 20 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 21 MAR 08 X.25 communication option no longer available after June 2006  
NEWS 22 MAR 22 EMBASE is now updated on a daily basis  
NEWS 23 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL  
NEWS 24 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC  
thesaurus added in PCTFULL  
NEWS 25 APR 04 STN AnaVist \$500 visualization usage credit offered  
  
NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT  
<http://download.cas.org/express/v8.0-Discover/>  
  
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=>

Uploading

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=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 09:38:37 ON 09 APR 2006

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 6 APR 2006 HIGHEST RN 879544-24-8

DICTIONARY FILE UPDATES: 6 APR 2006 HIGHEST RN 879544-24-8

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
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\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

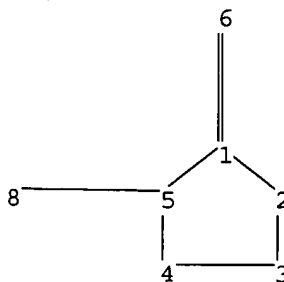
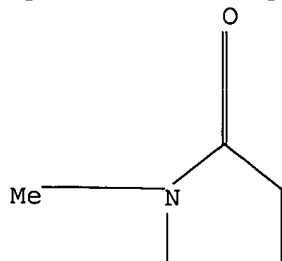
04/09/2006 10791982.trn

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<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10791982.str



chain nodes :

6 8

ring nodes :

1 2 3 4 5

chain bonds :

1-6 5-8

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-5 1-6 4-5

exact bonds :

1-2 2-3 3-4 5-8

isolated ring systems :

containing 1 :

Match level :

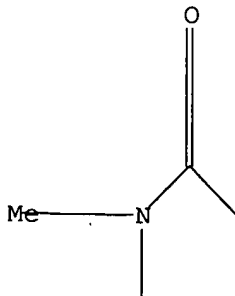
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 8:CLASS

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1

SAMPLE SEARCH INITIATED 09:38:49 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 14935 TO ITERATE

13.4% PROCESSED 2000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

48 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 291381 TO 306019  
PROJECTED ANSWERS: 6033 TO 8303

L2 48 SEA SSS SAM L1

=> S L1 SSS FULL

FULL SEARCH INITIATED 09:38:56 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 301477 TO ITERATE

100.0% PROCESSED 301477 ITERATIONS  
SEARCH TIME: 00.00.02

6074 ANSWERS

L3 6074 SEA SSS FUL L1

=> FIL HCAPLUS

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
166.94	167.15

FULL ESTIMATED COST

FILE 'HCAPLUS' ENTERED AT 09:39:04 ON 09 APR 2006  
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FILE COVERS 1907 - 9 Apr 2006 VOL 144 ISS 16  
FILE LAST UPDATED: 7 Apr 2006 (20060407/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3

L4 16625 L3

=> S L4 AND ALUMINA  
279219 ALUMINA  
2515 ALUMINAS  
279493 ALUMINA  
(ALUMINA OR ALUMINAS)

L5 188 L4 AND ALUMINA

=> S L5 AND ISOBUTYLENE  
19192 ISOBUTYLENE  
112 ISOBUTYLENES  
19230 ISOBUTYLENE  
(ISOBUTYLENE OR ISOBUTYLENES)

L6 2 L5 AND ISOBUTYLENE

=> S L5 AND BUTYL ALCOHOL  
260123 BUTYL  
33 BUTYLS  
260137 BUTYL  
(BUTYL OR BUTYLS)  
234920 ALCOHOL  
161475 ALCOHOLS  
366587 ALCOHOL  
(ALCOHOL OR ALCOHOLS)  
568518 ALC  
188446 ALCS  
664591 ALC  
(ALC OR ALCS)  
798008 ALCOHOL  
(ALCOHOL OR ALC)  
15854 BUTYL ALCOHOL  
(BUTYL(W)ALCOHOL)

L7 0 L5 AND BUTYL ALCOHOL

=> S L5 AND PURIFYING  
34787 PURIFYING

L8 2 L5 AND PURIFYING

=> S L5 AND PROCESS  
2225288 PROCESS  
1503336 PROCESSES  
3320173 PROCESS  
(PROCESS OR PROCESSES)

L9 72 L5 AND PROCESS

=> S L5 AND METHOD  
3063104 METHOD  
1257261 METHODS  
3966482 METHOD  
(METHOD OR METHODS)

L10 56 L5 AND METHOD

=> S L10 AND P/DT  
5176112 P/DT

L11 45 L10 AND P/DT

=> S L11 AND US/PC  
1524931 US/PC

04/09/2006 10791982.trn

L12 19 L11 AND US/PC

=>

=> D HIS

(FILE 'HOME' ENTERED AT 09:38:17 ON 09 APR 2006)

FILE 'REGISTRY' ENTERED AT 09:38:37 ON 09 APR 2006

L1 STRUCTURE UPLOADED

L2 48 S L1

L3 6074 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 09:39:04 ON 09 APR 2006

L4 16625 S L3

L5 188 S L4 AND ALUMINA

L6 2 S L5 AND ISOBUTYLENE

L7 0 S L5 AND BUTYL ALCOHOL

L8 2 S L5 AND PURIFYING

L9 72 S L5 AND PROCESS

L10 56 S L5 AND METHOD

L11 45 S L10 AND P/DT

L12 19 S L11 AND US/PC

=> d l6 ibib abs hitstr tot

L6 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:985345 HCAPLUS

DOCUMENT NUMBER: 143:288367

TITLE: Method for purifying N-methyl-2-pyrrolidone by treatment with an alumina adsorbent

INVENTOR(S): Kahn, Andrew P.; Weir, Thomas W.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 5 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005197502	A1	20050908	US 2004-791982	20040303
WO 2005092851	A1	20051006	WO 2005-US3202	20050203

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

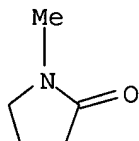
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-791982 A 20040303

AB A method for purifying N-methyl-2-pyrrolidone (I) comprises treating the I with an alumina that desorbs <100 µmol/g of isobutylene between 225-400° in a standard tert-Bu alc.

dehydration test. The method enables the removal of at least about 80% of amine impurities or  $\geq 60\%$  of the APHA color from the I at 4 bed vols. treated.

IT 872-50-4P, NMP, preparation  
 RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)  
 (method for purifying N-methyl-2-pyrrolidone by treatment with an  
 alumina adsorbent)  
 RN 872-50-4 HCAPLUS  
 CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



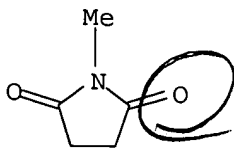
L6 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:609683 HCAPLUS  
 DOCUMENT NUMBER: 127:285874  
 TITLE: Simulated photographic-quality prints using  
 plasticizer to reduce curl  
 INVENTOR(S): Malhotra, Shadi L.  
 PATENT ASSIGNEE(S): Xerox Corp., USA  
 SOURCE: U.S., 20 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5665504	A	<del>19970909</del>	US 1996-584784	19960111
JP 09281737	A2	<del>19971031</del>	JP 1997-1317	19970108
PRIORITY APPLN. INFO.:			US 1996-584784	A 19960111

AB Simulated photog.-quality prints are created using nonphotog. imaging such as xerog. and ink-jet printing. Reverse or wrong reading toner images are formed on a transparent substrate which is adhered to a coated backing sheet. The backing sheet is coated with a polymer material which serves as an adhesive and has a glass transition temperature less than 55°. A hydrophilic polymer coating having a m.p. greater than 50° and a toner plasticizer having a m.p. less than 75° contacting the adhesive polymer serves as a wetting agent for providing an enhanced optical interface as well as protection for the adhesive polymer which has a lower m.p. than the adhesive polymer.

IT 1121-07-9, N-Methylsuccinimide  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (simulated photog.-quality prints containing)  
 RN 1121-07-9 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-methyl- (9CI) (CA INDEX NAME)



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L8 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS ON STN  
 ACCESSION NUMBER: 2005:985345 HCAPLUS  
 DOCUMENT NUMBER: 143:288367  
 TITLE: Method for **purifying** N-methyl-2-pyrrolidone  
 by treatment with an **alumina** adsorbent  
 INVENTOR(S): Kahn, Andrew P.; Weir, Thomas W.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005197502	A1	<del>20050908</del>	US 2004-791982	20040303
WO 2005092851	A1	20051006	WO 2005-US3202	20050203

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-791982 A 20040303

AB A method for **purifying** N-methyl-2-pyrrolidone (I) comprises treating the I with an **alumina** that desorbs <100  $\mu$ mol/g of isobutylene between 225-400° in a standard tert-Bu alc. dehydration test. The method enables the removal of at least about 80% of amine impurities or  $\geq$ 60% of the APHA color from the I at 4 bed vols. treated.

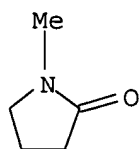
IT 872-50-4P, NMP, preparation

RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)  
 (method for **purifying** N-methyl-2-pyrrolidone by treatment with an **alumina** adsorbent)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)





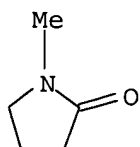
L8 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:182557 HCAPLUS  
 DOCUMENT NUMBER: 130:238303  
 TITLE: Purification of N-methyl-2-pyrrolidone as solvents for vinylidene fluoride polymers  
 INVENTOR(S): Horii, Masatoshi; Furukawa, Hiroshi; Inagaki, Hiroyuki; Tanba, Tadashi  
 PATENT ASSIGNEE(S): Tonen Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11071346	A2	19990316	JP 1997-249622	19970829
PRIORITY APPLN. INFO.:			JP 1997-249622	19970829

AB Title compound is purified by treating with acidic compds. or porous compds. Thus, N-methyl-2-pyrrolidone was neutralized with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and distilled to give N-methyl-2-pyrrolidone, whose solution of poly(vinylidene fluoride) showed Gardner color number 1, vs. number 18 for the untreated solvent.

IT **872-50-4P**, N-Methyl-2-pyrrolidone, preparation  
 RL: NUU (Other use, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)  
 (purification of methylpyrrolidone as solvents for vinylidene fluoride polymers)

RN 872-50-4 HCAPLUS  
 CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



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L12 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:1310054 HCAPLUS  
 DOCUMENT NUMBER: 144:57512  
 TITLE: Non-aqueous formulations containing biodegradable polymers and methionine and solvents for removing peroxides and reducing the oxidative degradation of drugs

INVENTOR(S): Fereira, Pamela J.; Desjardin, Michael A.; Rohloff, Catherine M.; Berry, Stephen A.; Zlatkova-Karaslavova, Ekaterina S.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S. Ser. No. 814,826.  
CODEN: USXXCO  
DOCUMENT TYPE: **Patent**  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

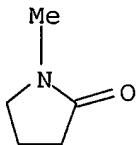
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005276856	A1	20051215	US 2005-183477	20050718 <--
US 2005008661	A1	20050113	US 2004-814826	20040331 <--
PRIORITY APPLN. INFO.:			US 2003-459300P	P 20030331
			US 2004-814826	A2 20040331

AB The present invention is related to materials and **methods** for forming polymeric delivery vehicles that reduces risk of oxidative degradation of a carried drug and the resulting comps. For example, stability of  $\omega$ -IFN was improved by adding L-methionine into PVP to remove peroxides.

IT **872-50-4**, n-Methylpyrrolidone, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(non-aqueous formulations containing biodegradable polymers and methionine and  
solvents for removing peroxides and reducing oxidative degradation of drugs)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:985345 HCAPLUS

DOCUMENT NUMBER: 143:288367

TITLE: ~~Method for purifying N-methyl-2-pyrrolidone~~  
by treatment with an **alumina** adsorbent

INVENTOR(S): Kahn, Andrew P.; Weir, Thomas W.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 5 pp.

CODEN: USXXCO

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

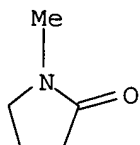
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005197502	A1	20050908	US 2004-791982	20040303 <--
WO 2005092851	A1	20051006	WO 2005-US3202	20050203

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-791982 A 20040303

AB A **method** for purifying N-methyl-2-pyrrolidone (I) comprises treating the I with an **alumina** that desorbs <100  $\mu$ mol/g of isobutylene between 225-400° in a standard tert-Bu alc. dehydration test. The **method** enables the removal of at least about 80% of amine impurities or  $\geq$ 60% of the APHA color from the I at 4 bed vols. treated.  
 IT 872-50-4P, NMP, preparation  
 RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation) (**method** for purifying N-methyl-2-pyrrolidone by treatment with an **alumina** adsorbent)  
 RN 872-50-4 HCAPLUS  
 CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:905472 HCAPLUS

DOCUMENT NUMBER: 141:382158

TITLE: **Method** of fabrication of single ion conductor-containing composite polymer electrolyte for lithium secondary battery

INVENTOR(S): Lee, Young Gi; Ryu, Kwang Sun; Chang, Soon Ho

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

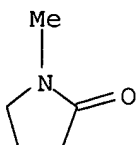
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004214089	A1	20041028	US 2003-750152	20031230 <--
JP 2004327423	A2	20041118	JP 2003-435912	20031226
CN 1610170	A	20050427	CN 2003-10125473	20031230
US 2005196677	A1	20050908	US 2005-97730	20050401 <--
PRIORITY APPLN. INFO.:			KR 2003-26420	A 20030425
			US 2003-750152	A2 20031230
			KR 2004-28470	A 20040424

AB Provided is a composite polymer electrolyte for a lithium secondary

battery that includes a composite polymer matrix structure having a single ion conductor-containing polymer matrix to enhance ionic conductivity and a **method** of manufacturing the same. The composite polymer electrolyte includes a first polymer matrix made of a first porous polymer with a first pore size; a second polymer matrix made of a single ion conductor, an inorg. material, and a second porous polymer with a second pore size smaller than the first pore size. The second polymer matrix is coated on a surface of the first polymer matrix. The composite polymer matrix structure can increase mech. properties. The single ion conductor-containing porous polymer matrix of a submicro-scale can enhance ionic conductivity and the

charge/discharge cycle stability.

IT **872-50-4**, n-Methylpyrrolidone, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (**method** of fabrication of single ion conductor-containing composite polymer electrolyte for lithium secondary battery)  
 RN **872-50-4** HCAPLUS  
 CN **2-Pyrrolidinone, 1-methyl-** (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:905471 HCAPLUS

DOCUMENT NUMBER: 141:382157

TITLE: **Method** of fabrication of composite polymer electrolyte of different morphologies for lithium secondary battery

INVENTOR(S): Lee, Young Gi; Kim, Kwang Man; Ryu, Kwang Sun; Chang, Soon Ho

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE:

**Patent**

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

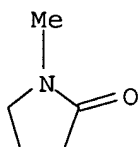
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004214088	A1	20041028	US 2003-748363	20031229 <--
JP 2004327422	A2	20041118	JP 2003-431458	20031225
CN 1610169	A	20050427	CN 2003-10125472	20031231
			KR 2003-26419	A 20030425

PRIORITY APPLN. INFO.:

AB A composite polymer electrolyte for a lithium secondary battery and a **method** of manufacturing the same are provided. The composite polymer electrolyte includes a composite film structure which includes a first porous polymer film with good mech. properties and a second porous polymer film with submicro-scale morphol. of more compact porous structure than the first porous polymer structure, coated on a surface of the first porous polymer film, and an electrolyte solution impregnated into the composite film structure. The different morphologies of the composite film structure enable to an increase in mech. properties and ionic conductivity

Furthermore, the charge/discharge cycle performance and stability of a lithium metal polymer secondary battery are enhanced.

IT 872-50-4, n-Methylpyrrolidone, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (method of fabrication of composite polymer electrolyte of  
 different morphologies for lithium secondary battery)  
 RN 872-50-4 HCAPLUS  
 CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



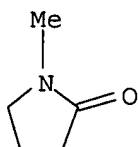
L12 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:414719 HCAPLUS  
 DOCUMENT NUMBER: 140:416900  
 TITLE: Porous inorganic/organic homogeneous copolymeric  
 hybrid materials for chromatographic separations, and  
 process for the preparation thereof  
 INVENTOR(S): Jiang, Zhiping; O'Gara, John E.; Fisk, Raymond P.;  
 Wyndham, Kevin D.; Brousmiche, Darryl W.  
 PATENT ASSIGNEE(S): Waters Investments Limited, USA  
 SOURCE: PCT Int. Appl., 62 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041398	A2	20040521	WO 2003-US34776	20031030
WO 2004041398	A3	20041229		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
GB 2414993	A1	20051214	GB 2005-8751	20031030
JP 2006504854	T2	20060209	JP 2004-550384	20031030
US 2005230298	A1	20051020	US 2005-119111	20050429 <--
PRIORITY APPLN. INFO.:			US 2002-422580P	P 20021030
			WO 2003-US34776	W 20031030
AB The present invention relates to porous inorg./organic homogeneous copolymeric hybrid material materials, including particulates and monoliths, <b>methods</b> for their manufacture, and uses thereof, e.g., as chromatog. sepns. materials.				
IT 872-50-4, 1-Methyl-2-pyrrolidinone, analysis RL: ARU (Analytical role, unclassified); ANST (Analytical study)				

(porogen; porous inorg./organic homogeneous copolymeric hybrid materials as stationary phases for chromatog. sepns. and process for their preparation)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:372705 HCAPLUS  
 DOCUMENT NUMBER: 140:371446  
 TITLE: Devices and **methods** for holding a biopolymeric array  
 INVENTOR(S): Parker, Russell A.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 28 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: **Patent**  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

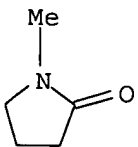
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004086874	A1	20040506	US 2002-286649	20021031 <--
PRIORITY APPLN. INFO.:			US 2002-286649	20021031

AB Devices and **methods** for holding at least one array are provided. The subject devices are characterized by having a housing having at least one array therein and an absorbing material associated with the housing that is capable of absorbing mols. within the housing deleterious to the array(s) held therein. The seal may be resealable and/or may be a hermetic seal. The subject **methods** include packaging at least one array in a subject array holding device. Also provided are **methods** for using an array that is held in a subject array holding device in an array assay. Kits for use in the subject **methods** are also provided.

IT 872-50-4, uses  
 RL: DEV (Device component use); USES (Uses)  
 (devices and **methods** for holding biopolymeric array)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

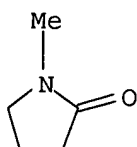
ACCESSION NUMBER: 2003:1007141 HCAPLUS  
 DOCUMENT NUMBER: 140:37992  
 TITLE: Membranes impregnated with cross-linked enzyme crystals and use for removal of uremic toxins from dialysate  
 INVENTOR(S): Tandon, Rahul; Karoor, Sujatha; Pauley, Robin; Boggs, Daniel; Yeh, Rosa  
 PATENT ASSIGNEE(S): Baxter International Inc., USA; Baxter Healthcare S.A.  
 SOURCE: PCT Int. Appl., 30 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106671	A1	20031224	WO 2003-US17530	20030603
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003235574	A1	20031225	US 2002-172657	20020614 <--
AU 2003237362	A1	20031231	AU 2003-237362	20030603
PRIORITY APPLN. INFO.:			US 2002-172657	A 20020614
			WO 2003-US17530	W 20030603

AB The present invention provides membranes impregnated with crosslinked enzyme crystals, devices, systems and **methods** of producing and using same for a variety of suitable applications including, for example, the removal of uremic toxins from dialyzate during dialysis therapy. In this regard, the enzyme impregnated membranes of the present invention can enzymically convert the uremic toxins into byproducts, thus allowing the dialyzate to be reused during therapy. This can effectively minimize the amount of dialyzate necessary for therapy, thus enhancing therapy and minimizing costs. Applicants have found that by using membranes impregnated with an amount of crosslinked enzyme crystal, such as urease CLEC, less urease can be used than that typically used in sorbent cartridges to remove urea from dialyzate. In addition to high enzymic-activity (about 750 units/mg), it is believed that this can be attributed to the fact that urease CLEC is effectively insol. in water as compared to the high water solubility of typically used urease materials. In this regard, it is believed that the urease CLEC impregnated within a polymer matrix of the membrane can be better contained in the sorbent cartridge such that excessive amts. thereof are not required to compensate for any potential loss of same during use. Further, the urease CLEC impregnated membranes of the present invention can be used without **alumina** or the like typically used to minimize leaching of urease and **alumina** from sorbent cartridges during therapy as previously discussed. Applicants have also found that the enzyme activity of the enzyme impregnated membranes of the present invention remains stable after exposure to gamma-radiation. Applicants have found that drying the membrane precipitate in a glycerol solution prior to use can effectively preserve

enzyme activity.

IT 872-50-4, 1-Methyl-2-pyrrolidinone, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (preparing a casting solution composed of a polymeric base material in;  
 membranes impregnated with cross-linked enzyme crystals and use for  
 removal of uremic toxins from dialyzate)  
 RN 872-50-4 HCAPLUS  
 CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:719445 HCAPLUS

DOCUMENT NUMBER: 139:230613

TITLE: **Method** for the simultaneous production of tetrahydrofurans and pyrrolidones

INVENTOR(S): Fischer, Rolf-Hartmuth; Roesch, Markus; Bottke, Nils; Weck, Alexander; Windecker, Gunther; Hesse, Michael; Borchert, Holger; Schlitter, Stephan

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

**Patent**

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074482	A1	20030912	WO 2003-EP2048	20030228
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10209633	A1	20030911	DE 2002-10209633	20020302
AU 2003227027	A1	20030916	AU 2003-227027	20030228
EP 1483238	A1	20041208	EP 2003-743348	20030228
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005119494	A1	20050602	US 2003-505706	20030228 <--
CN 1639118	A	20050713	CN 2003-805107	20030228
JP 2005530700	T2	20051013	JP 2003-572952	20030228
PRIORITY APPLN. INFO.:			DE 2002-10209633	A 20020302
			WO 2003-EP2048	W 20030228



OTHER SOURCE(S): CASREACT 139:230613

AB A **method** for the simultaneous production of optionally alkyl-substituted tetrahydrofurans and pyrrolidones comprises the gas-phase catalytic hydrogenation of C4 dicarboxylic acids and/or derivs. thereof in the presence of copper-containing catalysts and the reaction of  $\gamma$ -butyrolactone (I) with ammonia or primary amines to give pyrrolidones, whereby the C4 dicarboxylic acid derivs. are hydrogenated in the gas phase at 200 to 300 °C, 0.1 to 100 bar. Catalytic loadings are 0.01 to 1 kg starting material/L catalyst.hour and starting material/hydrogen mol. ratios of 20 to 800 in the presence of catalysts comprising copper, aluminum and/or zinc to give mixts. of THF and I, the product from hydrogenation is separated by distillation into a THF/water mixture as

top product and a bottom product comprising I, the THF/water mixture from the second step is separated in a distillation arrangement comprising three columns.

Water is drawn off from the bottom of the first column, THF containing water is recycled from the second column to the first column, a side stream from the first column is fed to the second column, the bottom product from the third column is recycled to the first column. A distillate is taken from the head of the first column, a side discharge from the second column is fed to the third column and the pure THF is obtained as the top product from the third column, I is obtained from the I-containing bottom product from the second step by distillation and the I thus obtained is reacted with ammonia or amines to give pyrrolidones.

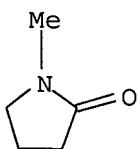
IT **872-50-4P**, N-Methylpyrrolidone, preparation

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(**method** for the simultaneous production of tetrahydrofurans and pyrrolidones)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:609488 HCAPLUS

DOCUMENT NUMBER: 139:137938

TITLE: **Method** of treating fats and oils

INVENTOR(S): Nakajoh, Katsuhiko; Muramatsu, Takehiko; Maezawa, Yukishige; Kon, Masao; Todoroki, Tomohiro; Nishizawa, Katsushi; Ohara, Atsushi

PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

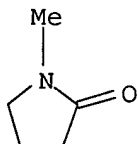
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1332774	A2	20030806	EP 2003-250743	20030205
EP 1332774	A3	20031217		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2003225507	A2	20030812	JP 2002-28370	20020205
JP 2003225504	A2	20030812	JP 2002-28371	20020205
CA 2418443	AA	20030805	CA 2003-2418443	20030204
AU 2003200424	A1	20030821	AU 2003-200424	20030205
US 2003175401	A1	20030918	US 2003-358335	20030205 <--
US 6998050	B2	20060214		

PRIORITY APPLN. INFO.: JP 2002-28370 A 20020205  
JP 2002-28371 A 20020205

AB The present invention provides a **method** of treating fats and oils containing low concentration aromatic halogen compds. which could remove the aromatic halogen compound contaminant efficiently from the oil and fats. The fats and oils are treated with an adsorbing agent comprising a porous body and a non-protonic polar solvent held in the interiors of fine pores in the porous body, with contaminated fats and oils containing organic pollutants, and adsorbing the pollutants in the non-protonic polar solvent in the porous body. The other **method** of treating fats and oils is comprising an adsorbing step of contacting fats and oils containing aromatic halogenated compds. with an adsorbing agent comprising a solid acid to adsorb the aromatic halogenated compds. onto the adsorbing agent, and a step of contacting the adsorbing agent with an organic solvent to extract the aromatic halogenated compds. adsorbed on the adsorbing agent into the organic solvent.

IT **872-50-4**, N-Methyl-2-pyrrolidone, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(as non-protonic polar solvent held in porous body; **methods** for removing persistent organic pollutants efficiently from oils and fats)

RN **872-50-4** HCAPLUS  
CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:335450 HCAPLUS

DOCUMENT NUMBER: 138:330011

TITLE: Polishing compound, **method** for production thereof, and polishing **method**

INVENTOR(S): Takemiya, Satoshi; Nakazawa, Norihito; Kon, Yoshinori

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan; Seimi Chemical Co., Ltd.

SOURCE: PCT Int. Appl., 29 pp.  
CODEN: PIXXD2

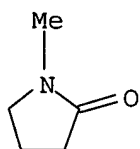
DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003036705	A1	20030501	WO 2002-JP10996	20021023
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1445796	A1	20040811	EP 2002-770253	20021023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2004194392	A1	20041007	US 2004-831618	20040426 <--
PRIORITY APPLN. INFO.:			JP 2001-329148	A 20011026
			JP 2001-353207	A 20011119
			WO 2002-JP10996	W 20021023
AB	A <b>method</b> for producing a polishing compound is described, which comprises dissolving a heterocyclic benzene compound such as benzotriazole in $\geq 1$ organic solvents selected from the group consisting of a primary alc. having 1-4 C atoms, a glycol having 2-4 C atoms, an ether represented by $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{OCmH}_{2m+1}$ , where m is an integer of 1-4, N-methyl-2-pyrrolidone, DMF, DMSO, $\gamma$ -butyrolactone and propylene carbonate, and then mixing the resulting solution with an aqueous dispersion of fine oxide particles as abrasive grains. A polishing compound produced by the <b>method</b> is also described. The use of the polishing compound for polishing a substrate having an insulating film and, formed thereon, a wiring metal film and a barrier film gives an embedded wiring being reduced in dishing, in erosion, and in scratch, with high polishing speed.			
IT	872-50-4, N-Methyl-2-pyrrolidone, uses RL: TEM (Technical or engineered material use); USES (Uses) (polishing compound, <b>method</b> for production thereof, and polishing <b>method</b> in wiring formation)			
RN	872-50-4 HCAPLUS			
CN	2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)			



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:58638 HCAPLUS

DOCUMENT NUMBER: 138:116379

TITLE: Jetting behavior in the laser forward transfer of rheological systems

INVENTOR(S): Young, Henry Daniel; Auyeung, Raymond C. Y.; Ringeisen, Bradley R.; Chrisey, Douglas B.; Dlott, Dana D.

PATENT ASSIGNEE(S): The United States of America as represented by the

SOURCE: Secretary of the Navy, USA  
 U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S.  
 Pat. Appl. 2002 197,401.  
 CODEN: USXXCO

DOCUMENT TYPE: **Patent**  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003017277	A1	20030123	US 2002-237072	20020909 <--
US 6815015	B2	20041109		
US 6177151	B1	20010123	US 1999-318134	19990525 <--
US 6766764	B1	20040727	US 2000-671166	20000928 <--
US 2002122898	A1	20020905	US 2002-68315	20020208 <--
US 6905738	B2	20050614		
US 2002197401	A1	20021226	US 2002-141820	20020510 <--
US 6805918	B2	20041019		

PRIORITY APPLN. INFO.:

US 1999-117468P	P	19990127
US 1999-318134	A3	19990525
US 2000-671166	A2	20000928
US 2001-327733P	P	20011004
US 2002-68315	A2	20020208
US 2002-141820	A2	20020510
US 2001-269384P	P	20010220
US 2001-290400P	P	20010511

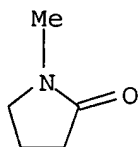
AB The invention relates generally to a laser transfer **method** for the deposition of a jet of a rheol. fluid or system onto a substrate. A **method** is presented for laser transfer and deposition of a rheol. fluid in which laser energy strikes a target substrate comprising a rheol. fluid, causing a portion of the rheol. fluid to evaporate and propel a jet of non-evaporated rheol. fluid onto a receiving substrate. It is an object of the invention to provide **methods** for depositing a rheol. fluid on a receiving substrate using a laser forward transfer apparatus that can produce a pattern with a resolution on the order of a few microns. It is a further object of the invention that the **method** use laser fluences lower than that required by other laser transfer **methods**. It is a further object of the invention that the **method** allow for higher d. and linewidth definition in the transferred material. It is a further object of the invention to provide a **method** that produces jetting behavior in the transferring rheol. fluid. It is a further object of the invention to use jetting to produce an area of deposit much smaller than the area of the incident laser energy. These and other objects of the invention are accomplished by a **method** for laser deposition comprising the steps of: providing a receiving substrate; providing a target substrate; in which the target substrate comprises a laser-transparent support coated with a coating on a surface facing the receiving substrate; and exposing the coating to laser energy through the laser-transparent support at a defined target location comprising a rheol. fluid to evaporate a portion of the rheol. fluid adjacent to the laser-transparent support at the defined target location; in which the laser energy has a laser fluence that is chosen to cause jetting behavior in the non-evaporated rheol. fluid; in which the non-evaporated rheol. fluid at the defined target location is propelled by the evaporated rheol. fluid away from the laser-transparent support and toward the receiving substrate; and in which the non-evaporated rheol. fluid is deposited at a defined receiving location on the receiving substrate to form a deposit.

IT 872-50-4, 1-Methyl-2-pyrrolidinone, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(coating material; jetting behavior in laser forward transfer of rheol. systems)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:978354 HCAPLUS

DOCUMENT NUMBER: 138:64738

TITLE: Laser forward transfer of rheological systems

INVENTOR(S): Auyeung, Raymond C. Y.; Pique, Alberto; Young, Henry Daniel; Modi, Rohit; Wu, Huey-daw; Chrisey, Douglas B.; Fitz-Gerald, James M.; Ringeisen, Bradley R.

PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of the Navy, USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 68,315.

CODEN: USXXCO

DOCUMENT TYPE:

**Patent**

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002197401	A1	20021226	US 2002-141820	20020510 <--
US 6805918	B2	20041019		
US 6177151	B1	20010123	US 1999-318134	19990525 <--
US 6766764	B1	20040727	US 2000-671166	20000928 <--
US 2002122898	A1	20020905	US 2002-68315	20020208 <--
US 6905738	B2	20050614		
US 2003017277	A1	20030123	US 2002-237072	20020909 <--
US 6815015	B2	20041109		

PRIORITY APPLN. INFO.:

US 1999-318134	A3	19990525
US 2000-671166	A2	20000928
US 2001-290400P	P	20010511
US 2002-68315	A2	20020208
US 1999-117468P	P	19990127
US 2001-269384P	P	20010220
US 2001-327733P	P	20011004
US 2002-141820	A2	20020510

AB This invention describes a **method** for laser transfer and deposition of a rheol. fluid wherein laser energy strikes a target substrate comprising a rheol. fluid, causing a portion of the rheol. fluid to evaporate and propel nonevaporated rheol. fluid onto a receiving substrate.

IT **872-50-4**, 1-Methyl-2-pyrrolidinone, uses

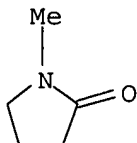
RL: TEM (Technical or engineered material use); USES (Uses)

(coating; deposition of rheol. systems on substrate using laser induced

forward transfer method)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:978171 HCAPLUS

DOCUMENT NUMBER: 138:42062

TITLE: **Method** for producing composite material comprising quinoxaline based polymer for battery electrodes

INVENTOR(S): Takeuchi, Masataka; Yasuda, Hiroshi; Mizuguchi, Junko

PATENT ASSIGNEE(S): Showa Denko K.K., Japan

SOURCE: PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002103825	A1	20021227	WO 2002-JP5784	20020611
WO 2002103825	C1	20031211		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2003068307	A2	20030307	JP 2002-126434	20020426
TW 548867	B	20030821	TW 2002-91111891	20020603
US 2004185342	A1	20040923	US 2003-479486	20031203 <--
PRIORITY APPLN. INFO.:			JP 2001-180067	A 20010614
			JP 2001-180068	A 20010614
			JP 2001-180069	A 20010614
			US 2001-298880P	P 20010619
			US 2001-298881P	P 20010619
			US 2001-298894P	P 20010619
			JP 2002-126434	A 20020426
			WO 2002-JP5784	W 20020611

AB The present invention relates to a **method** for producing a polymer/conductive carbon composite electrode comprising dehydration condensation polymerization of a tetramine derivative and a tetracarbonyl compound in

the presence of an elec. conductive carbon material. The synthesized polymer comprises quinoxaline structural units such as polyphenyl quinoxaline and serves as an active material having proton conductivity. The composite material for electrode obtained by the **method** has a large capacity of inserting/releasing a proton and excellent in durability. An electrode comprising the composite material and a secondary battery comprising the electrode is excellent in safety and reliability high-speed current characteristics, has a longer life and a larger gravimetric energy d.

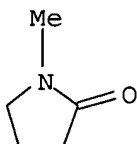
IT 872-50-4, n-Methylpyrrolidone, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(**method** for producing composite material comprising quinoxaline based polymer for battery electrodes)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:866668 HCAPLUS

DOCUMENT NUMBER: 137:360350

TITLE: Liquid composition for forming a colored portion for ink jet recording **method** and ink jet recording apparatus

INVENTOR(S): Tomioka, Hiroshi; Kurabayashi, Yutaka; Kato, Masao; Endo, Makiko

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: Eur. Pat. Appl., 55 pp.

CODEN: EPXXDW

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1256459	A2	20021113	EP 2002-10445	20020508
EP 1256459	A3	20030514		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003070581	A1	20030417	US 2002-136353	20020502 <--
US 6821328	B2	20041123		
CA 2384632	AA	20021110	CA 2002-2384632	20020503
CN 1385478	A	20021218	CN 2002-119252	20020510
JP 2003048367	A2	20030218	JP 2002-134853	20020510
PRIORITY APPLN. INFO.:			JP 2001-140441	A 20010510

AB The present invention relates to a liquid composition for use in forming a colored portion by imparting it together with an ink containing a colorant to a recording medium. The liquid composition includes at least a solvent and fine

particles reactive with the colorant and, in which the fine particles in the liquid composition have an average particle diameter in a range of 30-200 nm, and a

10% cumulative value of scattering intensity of  $\geq 10$  nm and 90% cumulative value of scattering intensity of  $\leq 300$  nm, when measured by a dynamic light scattering **method**.

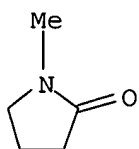
IT 872-50-4, N-Methylpyrrolidone, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(liquid composition for ink jet recording **method** and apparatus containing)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:172363 HCAPLUS

DOCUMENT NUMBER: 136:225722

TITLE: Low dielectric composite with nano magnetic particles and its manufacturing **method** for semiconductor device or optical device

INVENTOR(S): Park, Chan Eon; Kang, Jin-ho

PATENT ASSIGNEE(S): Pohang University of Science and Technology Foundation, S. Korea

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE:

**Patent**

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002027262	A1	20020307	US 2001-839594	20010423 <--
US 6849926	B2	20050201		
KR 2001097506	A	20011108	KR 2000-21639	20000424
PRIORITY APPLN. INFO.:			KR 2000-21639	A 20000424

AB A composite containing magnetic nanoparticles is provided which has a low dielec. constant, excellent thermal and mech. properties and low tendency to absorb moisture. The composite includes nano magnetic particles in a dielec. matrix. The matrix is made of an inorg. material such as SiO<sub>2</sub>, **alumina** or hydrogen silsesquioxane, or an organic material such as polyimide, polymethyl methacrylate (PMMA) or Me silsesquioxane. The nano magnetic particles consist of ( $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>), Cr oxide (CrO<sub>2</sub>), Eu oxide (EuO), NiZn-ferrite, MnZn-ferrite, Yttrium-Fe garnet or In.

IT 872-50-4, N-Methylpyrrolidone, uses

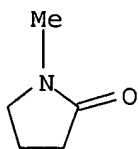
RL: NUU (Other use, unclassified); USES (Uses)

(in preparation of magnetic nanoparticles)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)





REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:107934 HCAPLUS  
 DOCUMENT NUMBER: 136:151002  
 TITLE: Palladium catalyzed cross coupling of aryl chlorides with aryl boronic acids to give biaryl compounds  
 INVENTOR(S): Sun, Yongkui; Leblond, Carl; Sowa, John R.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 7 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002016512	A1	20020207	US 2001-906244	20010716 <--
PRIORITY APPLN. INFO.:			US 2000-218990P	P 20000717

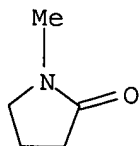
OTHER SOURCE(S): CASREACT 136:151002

AB A **method** of Pd catalyzed cross coupling of aryl and heteroaryl chlorides with boronic acids to give biaryls is described. Thus, 4-chloroanisole underwent cross-coupling with phenylboronic acid in the presence of 5 weight % Pd on carbon to give 33% 4-phenylanisole.

IT **872-50-4**, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (palladium catalyzed cross coupling of aryl chlorides with aryl boronic acids to give biaryl compds.)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1992:257474 HCAPLUS  
 DOCUMENT NUMBER: 116:257474  
 TITLE: **Methods** and compositions for corrosion protection of metals by means of waterborne polymeric films  
 INVENTOR(S): Muller, Frank A.; Zaelke, Arnold E.  
 PATENT ASSIGNEE(S): Atochem North America, Inc., USA  
 SOURCE: U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 679,879,

abandoned.  
CODEN: USXXAM

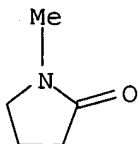
DOCUMENT TYPE: **Patent**  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5085696	A	19920204	US 1991-735481	19910725 <--
AU 9182702	A1	19920305	AU 1991-82702	19910826
JP 04234463	A2	19920824	JP 1991-238886	19910827
DE 4128572	A1	19920305	DE 1991-4128572	19910828
FR 2666341	A1	19920306	FR 1991-10688	19910828
NL 9101457	A	19920316	NL 1991-1457	19910828
BR 9103698	A	19920519	BR 1991-3698	19910828
PRIORITY APPLN. INFO.:			US 1990-575042	B2 19900819
			US 1991-679879	B2 19910403
			US 1991-735481	A 19910725

AB Anticorrosion emulsion compns. comprise acrylic resin 30-90, water-soluble blocked Zr catalyst 1-5%, n-PrOH- or iso-PrOH- or glycol ether- or N-methylpyrrolidone(I)-H<sub>2</sub>O mixture in 3-20:8-55, and corrosion additive 0.3-3%. Thus, a formulation of Rhoplex AC 1803 (acrylic resin) 60, H<sub>2</sub>O 28.89, Bacote 20 (ammonium zirconium carbonate solution) 2.5, Na 2-mercaptobenzothiazole 1.1, triethanolamine phosphate 0.03, I 5.0, iso-PrOH 2.4, Me Parasept 0.01, 2,2'-methylenebis(4-methyl-6-tert-butylphenol) 0.05, and Pluronic L61 0.02% gave A1 panels with protective films which passed the 168 h salt spray test (ASTM-B-117-73).

IT **872-50-4**, uses  
RL: USES (Uses)  
(mixture with water, to thicken acrylic anticorrosive coatings for aluminum)

RN 872-50-4 HCAPLUS  
CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1988:97713 HCAPLUS  
DOCUMENT NUMBER: 108:97713  
TITLE: A **method** of removing impurities from N-methylpyrrolidone used for solvent extraction of lube oil fractions using activated **alumina**  
INVENTOR(S): Krupay, Bordan Walter; Reid, Lloyd E.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: Eur. Pat. Appl., 15 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: **Patent**  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 251517	A2	19880107	EP 1987-305022	19870605
EP 251517	A3	19890208		
EP 251517	B1	19920115		
R: DE, FR, GB, IT				
US 4837338	A	19890606	US 1986-874474	19860616 <--
CA 1300163	A1	19920505	CA 1987-538469	19870601
JP 63002974	A2	19880107	JP 1987-148153	19870616
JP 07098799	B4	19951025		

## PRIORITY APPLN. INFO.:

US 1986-874474 A 19860616

AB N-Methylpyrrolidone solvent used to extract aromatic components from lubricating

oil distillates is purified by contacting the solvent with activated Al<sub>2</sub>O<sub>3</sub> which has been water-washed to remove any Na oxide present. The activated Al<sub>2</sub>O<sub>3</sub> is washed until the elec. conductivity of the wash water is reduced to .apprx.100 µmho/cm. Contact between the solvent and water-washed activated Al<sub>2</sub>O<sub>3</sub> occurs at 10-200° and 0.2-20 h<sup>-1</sup> liquid space velocity.

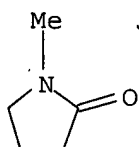
IT 872-50-4P, N-Methylpyrrolidone, uses and miscellaneous

RL: PREP (Preparation); USES (Uses)

(extraction solvent, spent, for lubricating oils, purification of, by activated alumina)

RN 872-50-4 HCAPLUS

CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L12 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:452920 HCAPLUS

DOCUMENT NUMBER: 87:52920

TITLE: Adsorbent treating method

INVENTOR(S): Ward, Dennis J.; Winter, George R., III

PATENT ASSIGNEE(S): UOP Inc., USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4008289	A	19770215	US 1975-594142	19750707 <--
GB 1591891	A	19810701	GB 1977-1876	19770118
SU 1153813	A3	19850430	SU 1977-2446253	19770131

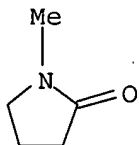
## PRIORITY APPLN. INFO.:

US 1975-594142 A 19750707

AB A method is described for removing adsorbed material from solid adsorbents, e.g., Al<sub>2</sub>O<sub>3</sub> and silica gel, used to treat liquid hydrocarbons, which comprises the steps of (1) withdrawing liquid hydrocarbon stream from fractionating column, (2) vaporizing this stream, (3) superheating the

vapor stream, (4) contacting the solid adsorbent with the vapor stream to remove the adsorbed material, and (5) returning the vapor stream to the fractionating column as a stripping vapor. Regeneration of Al<sub>2</sub>O<sub>3</sub>, in the manufacture of PhEt by alkylation of C<sub>6</sub>H<sub>6</sub> with ethylene in the presence of BF<sub>3</sub>, is outlined; a flow diagram of the apparatus is given.

IT 872-50-4, uses and miscellaneous  
 RL: REM (Removal or disposal); PROC (Process)  
 (removal of, from benzene, regeneration of silica gel adsorbent in)  
 RN 872-50-4 HCAPLUS  
 CN 2-Pyrrolidinone, 1-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



=> S N-METHYL-2-PYRROLIDONE  
 2899070 N  
 961496 METHYL  
 656 METHYLS  
 961896 METHYL  
 (METHYL OR METHYLS)  
 907078 ME  
 10305 MES  
 913444 ME  
 (ME OR MES)  
 1547974 METHYL  
 (METHYL OR ME)  
 8697223 2  
 21297 PYRROLIDONE  
 721 PYRROLIDONES  
 21527 PYRROLIDONE  
 (PYRROLIDONE OR PYRROLIDONES)  
 L13 6896 N-METHYL-2-PYRROLIDONE  
 (N (W) METHYL (W) 2 (W) PYRROLIDONE)

=> S L13 AND METHOD  
 3063104 METHOD  
 1257261 METHODS  
 3966482 METHOD  
 (METHOD OR METHODS)  
 L14 939 L13 AND METHOD

=> S L14 AND ALUMINA  
 279219 ALUMINA  
 2515 ALUMINAS  
 279493 ALUMINA  
 (ALUMINA OR ALUMINAS)  
 L15 20 L14 AND ALUMINA

=> S L15 AND ISOBUTYLENE  
 19192 ISOBUTYLENE  
 112 ISOBUTYLENES  
 19230 ISOBUTYLENE

(ISOBUTYLENE OR ISOBUTYLENES)  
 L16 1 L15 AND ISOBUTYLENE

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L16 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:985345 HCAPLUS  
 DOCUMENT NUMBER: 143:288367  
 TITLE: **Method for purifying N-methyl-2-pyrrolidone** by treatment with an **alumina** adsorbent  
 INVENTOR(S): Kahn, Andrew P.; Weir, Thomas W.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005197502	A1	<del>20050908</del>	US 2004-791982	20040303
WO 2005092851	A1	20051006	WO 2005-US3202	20050203

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-791982 A 20040303

AB A **method** for purifying **N-methyl-2-pyrrolidone** (I) comprises treating the I with an **alumina** that desorbs <100 µmol/g of **isobutylene** between 225-400° in a standard tert-Bu alc. dehydration test. The **method** enables the removal of at least about 80% of amine impurities or ≥60% of the APHA color from the I at 4 bed vols. treated.

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L15 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:985345 HCAPLUS  
 DOCUMENT NUMBER: 143:288367  
 TITLE: **Method for purifying N-methyl-2-pyrrolidone** by treatment with an **alumina** adsorbent  
 INVENTOR(S): Kahn, Andrew P.; Weir, Thomas W.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005197502	A1	20050908	US 2004-791982	20040303
WO 2005092851	A1	20051006	WO 2005-US3202	20050203

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW,

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-791982 A 20040303

AB A **method** for purifying **N-methyl-2-pyrrolidone** (I) comprises treating the I with an **alumina** that desorbs <100  $\mu\text{mol/g}$  of isobutylene between 225-400° in a standard tert-Bu alc. dehydration test. The **method** enables the removal of at least about 80% of amine impurities or  $\geq 60\%$  of the APHA color from the I at 4 bed vols. treated.

L15 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:5419 HCAPLUS

DOCUMENT NUMBER: 142:356223

TITLE: **Method** for preparing nano Al<sub>2</sub>O<sub>3</sub> SiO<sub>2</sub>-polysulfone composite film with mesophase structure

INVENTOR(S): Zhang, Yuqing; Chen, Chao; Zhu, Yongjun; Qin, Shulan; Xu, Qiang; Hu, Chunping

PATENT ASSIGNEE(S): Tianjin University, Peop. Rep. China; Guozhong Aihua Tianjin Civil Environmental Engineering Co., Ltd.

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp. CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1478590	A	20040303	CN 2003-130377	20030709

PRIORITY APPLN. INFO.: CN 2003-130377 20030709

AB The **method** comprises mixing polysulfone with a hole-forming agent (at a ratio of 0.2-0.5) at 20-65° in organic solvent for 4-15 h to obtain solution I; treating 1-200 nm Al<sub>2</sub>O<sub>3</sub> SiO<sub>2</sub> powder with a surface activating agent (at a ratio of 0.2-0.8) at 18-30° for 8-48 h, dispersing in organic solvent under ultrasonic vibration for 10-30 min, mixing with solution I at a ratio of Al<sub>2</sub>O<sub>3</sub> SiO<sub>2</sub> to polysulfone of 0.1-0.5, defoaming for 20-30 h, and film forming. The organic solvent is DMF, DMA, or **N-methyl-2-pyrrolidone**. The hole-forming agent is polyvinylpyrrolidone, polyethylene glycol, acetone, or chloroform. The surface activating agent is polydiethylsilane, polydimethylsilane, titanate ester, stearic acid, Na stearate, etc.

L15 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:517665 HCAPLUS  
 DOCUMENT NUMBER: 141:211183  
 TITLE: Towards single step production of multi-layer inorganic hollow fibers  
 AUTHOR(S): De Jong, J.; Benes, N. E.; Koops, G. H.; Wessling, M.  
 CORPORATE SOURCE: Membrane Technology Group, Faculty of Science and Technology, University of Twente, Enschede, NL-7500 AE, Neth.  
 SOURCE: Journal of Membrane Science (2004), 239(2), 265-269  
 CODEN: JMESDO; ISSN: 0376-7388  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB In this work we propose a generic synthesis route for the single step production of multi-layer inorg. hollow fibers, based on polymer wet spinning combined with a heat treatment. With this new **method**, membranes with a high surface area per unit volume ratio can be produced, while production time and costs are dramatically reduced. The proof-of-principle of the concept will be demonstrated with the production of double layer  $\alpha$ -**alumina** hollow fibers. Although various problems were anticipated at the interface of the layers, the adhesion between the two layers is surprisingly good, both in the precursor and the sintered fiber. Produced fibers show an asym. structure with a porosity 37-45%. The macrostructure of the sintered fiber is largely determined by the macrostructure of the precursor fiber, while differences in microstructure disappear during the heat treatment step. The proposed **method** is not limited to  $\alpha$ -**alumina** membranes; in principle many ceramic or metallic powders may be used. This means that this **method** can open up the way for a new generation of membranes.

L15 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:760006 HCAPLUS  
 DOCUMENT NUMBER: 140:410762  
 TITLE: Preparation of porous aluminium oxide (Al<sub>2</sub>O<sub>3</sub>) hollow fibre membranes by a combined phase-inversion and sintering **method**  
 AUTHOR(S): Liu, Shaomin; Li, K.; Hughes, R.  
 CORPORATE SOURCE: Institute of Environmental Science and Engineering, Singapore, 637723, Singapore  
 SOURCE: Ceramics International (2003), 29(8), 875-881  
 CODEN: CINNDH; ISSN: 0272-8842  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Al<sub>2</sub>O<sub>3</sub> hollow fiber membranes were prepared by a combined phase-inversion and sintering **method**. An organic binder solution (dope) containing suspended aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) powders, either in mono size or a distributed size, is spun to a hollow fiber precursor, which is then sintered at elevated temps. In spinning the hollow fiber precursor, polyethersulfone (PESf), **N-methyl-2-pyrrolidone** (NMP) and polyvinyl pyrrolidone (PVP) were used as a polymer binder, a solvent and an additive, resp. The Al<sub>2</sub>O<sub>3</sub> hollow fiber membranes prepared were characterized by SEM and gas permeation techniques. Effects of Al<sub>2</sub>O<sub>3</sub> particle size and size distribution, the sintering temperature and Al<sub>2</sub>O<sub>3</sub>/PESf ratio on the structure and performance of the resulting membranes were studied extensively. The prepared Al<sub>2</sub>O<sub>3</sub> hollow fiber membranes retains its asym. structure (mainly resulted from the phase inversion technique) even

after the sintering process. Preparation of the Al<sub>2</sub>O<sub>3</sub> hollow fiber membrane with a high mech. strength and moderate permeation characteristics is feasible if the Al<sub>2</sub>O<sub>3</sub> powders with a distributed particle size in the spinning (dope) solution is employed.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:609488 HCAPLUS

DOCUMENT NUMBER: 139:137938

TITLE: **Method** of treating fats and oils

INVENTOR(S): Nakajoh, Katsuhiko; Muramatsu, Takehiko; Maezawa, Yukishige; Kon, Masao; Todoroki, Tomohiro; Nishizawa, Katsushi; Ohara, Atsushi

PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1332774	A2	20030806	EP 2003-250743	20030205
EP 1332774	A3	20031217		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2003225507	A2	20030812	JP 2002-28370	20020205
JP 2003225504	A2	20030812	JP 2002-28371	20020205
CA 2418443	AA	20030805	CA 2003-2418443	20030204
AU 2003200424	A1	20030821	AU 2003-200424	20030205
US 2003175401	A1	20030918	US 2003-358335	20030205
US 6998050	B2	20060214		

PRIORITY APPLN. INFO.: JP 2002-28370 A 20020205

JP 2002-28371 A 20020205

AB The present invention provides a **method** of treating fats and oils containing low concentration aromatic halogen compds. which could remove the aromatic halogen compound contaminant efficiently from the oil and fats. The fats and oils are treated with an adsorbing agent comprising a porous body and a non-protonic polar solvent held in the interiors of fine pores in the porous body, with contaminated fats and oils containing organic pollutants, and adsorbing the pollutants in the non-protonic polar solvent in the porous body. The other **method** of treating fats and oils is comprising an adsorbing step of contacting fats and oils containing aromatic halogenated compds. with an adsorbing agent comprising a solid acid to adsorb the aromatic halogenated compds. onto the adsorbing agent, and a step of contacting the adsorbing agent with an organic solvent to extract the aromatic halogenated compds. adsorbed on the adsorbing agent into the organic solvent.

L15 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:495919 HCAPLUS

DOCUMENT NUMBER: 139:248942

TITLE: Preparation TiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> composite hollow fibre membranes

AUTHOR(S): Liu, Shaomin; Li, K.

CORPORATE SOURCE: Institute of Environmental Science and Engineering, Singapore, 637723, Singapore



SOURCE: Journal of Membrane Science (2003), 218(1-2), 269-277  
 CODEN: JMESDO; ISSN: 0376-7388  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) hollow fibers were prepared by a combined phase inversion/sintering **method**. An organic binder solution (dope) containing suspended Al<sub>2</sub>O<sub>3</sub> powders is spun into a hollow fiber precursor, which is then sintered at elevated temps. In spinning the hollow fiber precursor, polyethersulfone (PESf), **N-methyl-2-pyrrolidone** (NMP) and polyvinylpyrrolidone (PVP) were used as a polymer binder, a solvent and an additive, resp. The prepared Al<sub>2</sub>O<sub>3</sub> hollow fiber membranes with suitable surface roughness were then used as substrates for the fabrication of porous or dense TiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> composite membranes via direct deposition using an aqueous solution containing titanium tetrafluoride. The prepared Al<sub>2</sub>O<sub>3</sub> substrates and the TiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> composite hollow fiber membranes were characterized by SEM, X-ray diffraction (XRD) and gas permeation techniques. The results indicate that TiO<sub>2</sub>-based hollow fiber membranes, consisting of small anatase nano-particles, exhibit excellent adhesion to the outside surface of the tailor-made Al<sub>2</sub>O<sub>3</sub> hollow fiber substrates.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:335450 HCAPLUS

DOCUMENT NUMBER: 138:330011

TITLE: Polishing compound, **method** for production thereof, and polishing **method**

INVENTOR(S): Takemiya, Satoshi; Nakazawa, Norihito; Kon, Yoshinori

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan; Seimi Chemical Co., Ltd.

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003036705	A1	20030501	WO 2002-JP10996	20021023
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1445796	A1	20040811	EP 2002-770253	20021023
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
US 2004194392	A1	20041007	US 2004-831618	20040426
PRIORITY APPLN. INFO.:			JP 2001-329148	A 20011026
			JP 2001-353207	A 20011119
			WO 2002-JP10996	W 20021023

AB A **method** for producing a polishing compound is described, which comprises dissolving a heterocyclic benzene compound such as benzotriazole in  $\geq 1$  organic solvents selected from the group consisting of a primary alc. having 1-4 C atoms, a glycol having 2-4 C atoms, an ether represented by  $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{OC}_m\text{H}_{2m+1}$ , where m is an integer of 1-4, **N-methyl-2-pyrrolidone**, DMF, DMSO,  $\gamma$ -butyrolactone and propylene carbonate, and then mixing the resulting solution with an aqueous dispersion of fine oxide particles as abrasive grains. A polishing compound produced by the **method** is also described. The use of the polishing compound for polishing a substrate having an insulating film and, formed thereon, a wiring metal film and a barrier film gives an embedded wiring being reduced in dishing, in erosion, and in scratch, with high polishing speed.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:747917 HCAPLUS  
DOCUMENT NUMBER: 137:279963  
TITLE: Oxide filler-containing slurry composition  
INVENTOR(S): Sakai, Takenobu; Abe, Akira; Yang, Wu  
PATENT ASSIGNEE(S): Toyota Motor Corp., Japan; Admatechs Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002285003	A2	20021003	JP 2001-85650	20010323

PRIORITY APPLN. INFO.: JP 2001-85650 20010323

AB Title slurry composition is obtained by dispersing a filler (silica) in an organic solvent and is useful in preparing a filler-containing resin composition by dispersing the slurry in a resin matrix, where the filler is characterized by being oxide particles having a shape approx. to spherical and is produced by VMC (vaporized metal combustion) **method**. The filler may also be surface-treated and may contain a precipitation-preventing agent.

L15 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:868873 HCAPLUS  
DOCUMENT NUMBER: 136:9101  
TITLE: Fabrication **method** for lithium secondary battery with polymer electrolyte prepared by spray **method**  
INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Cho, Won Il; Kim, Hyung Sun; Kim, Un Seok  
PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea  
SOURCE: PCT Int. Appl., 34 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091222	A1	20011129	WO 2000-KR515	20000522

W: JP, KR, US

PRIORITY APPLN. INFO.: WO 2000-KR515 20000522

AB The present invention provides a lithium secondary battery and its fabrication **method**. More particularly, the present invention provides a lithium secondary battery comprising a porous polymer electrolyte and its fabrication **method**, wherein the polymer electrolyte is fabricated by the following process: (a) dissolving at least one polymer with plasticizers and organic electrolyte solvents to obtain at least one polymeric electrolyte solution; (b) adding the obtained polymeric electrolyte solution to a barrel of a spray machine, and (c) spraying the polymeric electrolyte solution onto a substrate using a nozzle to form a porous polymer electrolyte film. The lithium secondary battery of the present invention has advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., and better compatibility with organic electrolytes of a lithium secondary battery.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:868872 HCAPLUS

DOCUMENT NUMBER: 136:9100

TITLE: A lithium secondary battery comprising composite polymer electrolyte fabricated by a spray **method**

INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Cho, Won Il; Kim, Hyung Sun; Kim, Un Seok

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091221	A1	20011129	WO 2000-KR514	20000522

W: JP, KR, US

PRIORITY APPLN. INFO.: WO 2000-KR514 20000522

AB The present invention provides a novel composite polymer electrolyte, lithium secondary battery comprising the composite polymer electrolyte and their fabrication **methods**. More particularly, the present invention provides the composite polymer electrolyte comprising a porous polymer electrolyte matrix with particles, fibers or mixture thereof having diams. of 1-3000 nm, polymers and lithium salt-dissolved organic electrolyte solns. incorporated into the porous polymer matrix. The composite polymer electrolyte of the present invention has advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., better compatibility with organic electrolytes of lithium secondary battery and it can be applied to the manufacture of lithium secondary batteries.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:868871 HCAPLUS  
DOCUMENT NUMBER: 136:9099  
TITLE: Fabrication of a lithium secondary battery comprising  
a hybrid polymer electrolyte prepared by a spray  
**method**  
INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Cho, Won Il; Kim,  
Hyung Sun; Kim, Un Seok  
PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea  
SOURCE: PCT Int. Appl., 39 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091220	A1	20011129	WO 2000-KR513	20000522

W: JP, KR, US

PRIORITY APPLN. INFO.: WO 2000-KR513 20000522

AB The present invention provides a novel hybrid polymer electrolyte, a lithium secondary battery comprising the hybrid polymer electrolyte and their fabrication **methods**. More particularly, the present invention provides the hybrid polymer electrolyte comprising a porous polymer matrix with particles, fibers or mixture thereof having diams. of 1-3000 nm, polymers and lithium salt-dissolved organic electrolyte solns. incorporated into the porous polymer matrix. The hybrid polymer electrolyte has advantages of better adhesion with electrodes, good mech. strength, better performance at low- and high-temps., better compatibility with organic electrolytes of a lithium secondary battery and it can be applied to the manufacture of lithium secondary batteries.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:868870 HCAPLUS  
DOCUMENT NUMBER: 136:9098  
TITLE: A lithium secondary battery comprising a porous  
polymer separator film fabricated by a spray  
**method**  
INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Cho, Won Il; Kim,  
Hyung Sun; Kim, Un Seok  
PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea  
SOURCE: PCT Int. Appl., 36 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091219	A1	20011129	WO 2000-KR512	20000522

W: JP, KR, US

PRIORITY APPLN. INFO.: WO 2000-KR512 20000522

AB The present invention provides a lithium secondary battery and its fabrication **method**. More particularly, the present invention provides a lithium secondary battery comprising a porous polymer separator film and its fabrication **method**, wherein the porous polymer

separator film is fabricated by the following process : (a) melting at least one polymer or dissolving at least one polymer with an organic solvent to obtain at least one polymeric melt or at least one polymeric solution; (b) adding the obtained polymeric melt or polymeric solution to barrels of a spray machine; and (c) spraying the polymeric melt or polymeric solution onto a substrate using a nozzle to form a porous separator film. The lithium secondary battery of the present invention has advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., and better compatibility with an organic electrolyte solution of a lithium secondary battery.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:851557 HCAPLUS

DOCUMENT NUMBER: 135:374196

TITLE: Fabrication of a lithium secondary battery comprising a superfine fibrous polymer electrolyte

INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Jo, Seong Mu; Lee, Wha Seop; Cho, Won Il; Park, Kun You; Kim, Hyung Sun; Kim, Un Seok; Ko, Seok Ku; Chun, Suk Won; Choi, Sung Won

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001089023	A1	20011122	WO 2000-KR501	20000519

W: JP, KR, US

PRIORITY APPLN. INFO.: WO 2000-KR501 20000519

AB The present invention provides a lithium secondary battery and its fabrication **method**. More particularly, the present invention provides a lithium secondary battery comprising super fine fibrous porous polymer electrolyte and its preparation **method**, wherein the polymer electrolyte is fabricated by the following process: (a) dissolving at least one polymer with plasticizers and y organic electrolyte solvents to obtain at least one polymeric electrolyte solution; (b) adding the obtained polymeric electrolyte solution to a barrel of an electrospinning machine; and, (c) electrospinning the polymeric electrolyte solution onto a substrate using a nozzle to form a polymer electrolyte film. The lithium secondary battery of the present invention has advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., and better compatibility with organic electrolytes of a lithium secondary battery.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:851556 HCAPLUS

DOCUMENT NUMBER: 135:374195

TITLE: Fabrication of a lithium secondary battery comprising a superfine fibrous polymer separator film

INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Jo, Seong Mu; Lee, Wha Seop; Cho, Won Il; Park, Kun You; Kim, Hyung Sun; Kim, Un Seok; Ko, Seok Ku; Chun, Suk Won; Choi, Sung Won

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea  
 SOURCE: PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001089022	A1	20011122	WO 2000-KR500	20000519
W: JP, KR, US				
JP 2003533862	T2	20031111	JP 2001-585344	20000519
PRIORITY APPLN. INFO.:			WO 2000-KR500	W 20000519

AB The present invention provides a lithium secondary battery and its fabrication **method**. More particularly, the present invention provides a lithium secondary battery comprising a super fine fibrous porous polymer separator film and its fabrication **method**, wherein the porous polymer separator film is fabricated by the following process: (a) melting at least one polymer or dissolving at least one polymer with organic solvents to obtain at least one polymeric melt or at least one polymeric solution; (b) adding the obtained polymeric melt or polymeric solution to barrels of an electrospinning machine; and (c) discharging the polymeric melt or polymeric solution onto a substrate using a nozzle to form a porous separator film. The lithium secondary battery of the present invention has the advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., and better compatibility with organic electrolyte solution of a lithium secondary battery.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:851555 HCAPLUS

DOCUMENT NUMBER: 135:374194

TITLE: Fabrication of composite polymer electrolyte and a lithium secondary battery comprising the composite polymer electrolyte

INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Jo, Seong Mu; Lee, Wha Seop; Cho, Won Il; Park, Kun You; Kim, Hyung Sun; Kim, Un Seok; Ko, Seok Ku; Choi, Sung Won

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea; Chun, Suk Won

SOURCE: PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001089021	A1	20011122	WO 2000-KR499	20000519
W: JP, KR, US				
PRIORITY APPLN. INFO.:			WO 2000-KR499	20000519

AB The present invention provides a novel composite polymer electrolyte, lithium secondary battery comprising the composite polymer electrolyte and their fabrication **methods**. More particularly, the present invention provides the composite polymer electrolyte comprising super fine

fibrous porous polymer electrolyte matrix with particles having diameter of 1-3000 nm, polymers and lithium salt-dissolved organic electrolyte solns. incorporated into the porous polymer electrolyte matrix. The composite polymer electrolyte of the present invention has advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., better compatibility with organic electrolytes of lithium secondary battery and it can be applied to the manufacture of lithium secondary batteries.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:851554 HCAPLUS

DOCUMENT NUMBER: 135:374193

TITLE: Fabrication **method** of lithium secondary battery with hybrid polymer electrolyte

INVENTOR(S): Yun, Kyung Suk; Cho, Byung Won; Jo, Seong Mu; Lee, Wha Seop; Cho, Won Il; Park, Kun You; Kim, Hyung Sun; Kim, Un Seok; Ko, Seok Ku; Chun, Suk Won; Choi, Sung Won

PATENT ASSIGNEE(S): Korea Institute of Science and Technology, S. Korea

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001089020	A1	20011122	WO 2000-KR498	20000519
W: JP, KR, US				
JP 2003533861	T2	20031111	JP 2001-585342	20000519
PRIORITY APPLN. INFO.:			WO 2000-KR498	W 20000519

AB The present invention provides a novel hybrid polymer electrolyte, a lithium secondary battery comprising the hybrid polymer electrolyte polymer and their fabrication **methods**. More particularly, the present invention provides the hybrid polymer electrolyte comprising superfine fibrous porous polymer matrix with particles having diameter of 1-3000 nm, polymers and lithium salt-dissolved organic electrolyte solns. incorporated into the porous polymer matrix. The hybrid polymer electrolyte has advantages of better adhesion with electrodes, good mech. strength, better performance at low and high temps., better compatibility with organic electrolytes of a lithium secondary battery and it can be applied to the manufacture of lithium secondary batteries.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:314175 HCAPLUS

DOCUMENT NUMBER: 131:129924

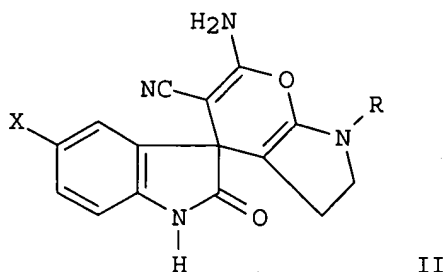
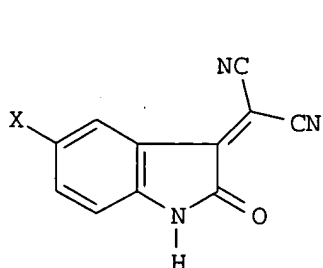
TITLE: An efficient procedure for the synthesis of spiro[3H-indole-3,4'-(1'H)-pyrano[2,3-c]pyrrole]-5'-carbonitriles using solid inorganic supports and microwave activation

AUTHOR(S): Dandia, Anshu; Taneja, Harshita; Gupta, Rajive; Paul, Satya

CORPORATE SOURCE: Department of Chemistry, University of Rajasthan, Jaipur, 302 004, India

SOURCE: Synthetic Communications (1999), 29(13), 2323-2335

PUBLISHER: CODEN: SYNCAV; ISSN: 0039-7911  
 Marcel Dekker, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 131:129924  
 GI



AB Microwave irradiation accelerates the Michael condensation of 3-dicyanomethylene-2H-indole-2-one I (X = H, Me, Cl) with 2-pyrrolidone/**N-methyl-2-pyrrolidone** (i) adsorbed on neutral **alumina** in "dry media" and (ii) using absolute ethanol as energy transfer medium to give spiro compds. II (R = H, Me). 3-Dicyanomethylene-2H-indol-2-one was synthesized under microwave irradiation using indole-2,3-dione and malononitrile. The results were compared with those obtained following the classical **method**. The advantages obtained by the use of microwave irradiation are demonstrated.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:618146 HCAPLUS

DOCUMENT NUMBER: 123:15942

TITLE: Manufacture of asymmetric ceramic membranes

INVENTOR(S): Adriansens, Walter; Doyen, Willy; Leysen, Roger; Brauns, Etienne

PATENT ASSIGNEE(S): "Vlaamse Instelling voor Technologisch Onderzoek", Afgekort :v.i.t.o.", onderneming, Belg.

SOURCE: Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 650759	A1	19950503	EP 1994-203000	19941015
R: AT, BE, DE, DK, ES, FR, GB, IT, NL, PT, SE				
BE 1008230	A3	19960220	BE 1993-1199	19931029
PRIORITY APPLN. INFO.:			BE 1993-1199	A 19931029

AB In this **method**, comprising coating a porous carrier with ceramic powder by wet process and heat-treating the material, a suspension of the ceramic powder and organic binder in a solvent is prepared in ceramic powder/binder weight ratio 1-99, the suspension is applied to the porous



carrier by film casting, the solvent removed by extraction with a nonsolvent, the binder removed thermally, and the material sintered. A porous Al<sub>2</sub>O<sub>3</sub> carrier tube was coated with a dispersion of Al<sub>2</sub>O<sub>3</sub> powder in Udel P 1800 NT11 (polysulfone) and **N-methyl-2-pyrrolidone** (solvent). Water was used as the nonsolvent.

L15 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:430145 HCAPLUS  
DOCUMENT NUMBER: 119:30145  
TITLE: Washing **method** for (oligo)polymer- and monomer-attached substrates  
INVENTOR(S): Yada, Masato  
PATENT ASSIGNEE(S): Seiko Epson Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04318036	A2	19921109	JP 1991-83752	19910416
JP 3189288	B2	20010716		

PRIORITY APPLN. INFO.: JP 1991-83752 19910416

AB The title process comprises showering polymer- or monomer-attached substrates with aqueous solns., soaking in surfactant-containing solns., ultrasonically washing with aqueous solns. containing surfactants and soluble gas at a certain concentration, washing with water-organic solvent mixts., and drying. Thus, diethylene glycol bis(allyl carbonate) was polymerized to form a lens which was showered with 20 L/min H<sub>2</sub>O, soaked in 10% M-6000 (nonionic surfactant)-containing aqueous solution, ultrasonically washed with 1% M-6000- and 17-ppm O-containing aqueous solution, washed with methyl-2-pyrrolidone-H<sub>2</sub> mixture, then with H<sub>2</sub>O at 60°, and dried to result a surface with 4 impurities/cm<sup>2</sup> (by laser scattering **method**).

L15 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:593593 HCAPLUS  
DOCUMENT NUMBER: 109:193593  
TITLE: **Method** for removing basic nitrogen compounds from extracted oils by use of acidic polar adsorbents and the regeneration of said adsorbents  
INVENTOR(S): Yao, Keith Chen  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: Eur. Pat. Appl., 26 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 278694	A2	19880817	EP 1988-300982	19880205
EP 278694	A3	19891018		
EP 278694	B1	19920729		

04/09/2006 10791982.trn

R: DE, FR, GB, IT  
US 4846962 A 19890711 US 1987-14271 19870212  
CA 1323841 A1 19931102 CA 1988-556851 19880119  
JP 63200804 A2 19880819 JP 1988-27839 19880210

PRIORITY APPLN. INFO.: US 1987-14271 A 19870212

AB Basic N compds. (BNC) are selectively removed from solvent extracted oils (e.g., transformer oils) by contacting the oil with a solid acidic adsorbent containing 20-30 weight% Al<sub>2</sub>O<sub>3</sub>; the adsorbent has a surface area of 50-700 m<sup>2</sup>/g and an average pore diameter of 10-200 Å. The adsorbent may addnl. contain F or <30 weight% water, and is regenerated by either purging with H at elevated temperature and pressure, or by washing BNC-saturated adsorbent with extraction process solvent, e.g., **N-methyl-2-pyrrolidone** (I). Extracted oil raffinate treated with the adsorbent to remove BNC exhibits superior uninhibited oxidation stability as compared to untreated conventional hydrofined oil. Thus, Western Canadian 150N stock, I-extracted lubricating oil (viscosity index 90, 0.17 weight% S, 51 ppm basic N) was treated in a batch system using the ketjen high Al base (3:1 SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> weight ratio) at 100-250° and 20:1 weight ratio oil-adsorbent mixture for 2 h, resulting in >98% BNC removal.

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
210.49	377.64

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-33.00	-33.00

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